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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
ORTIZ CRIADO, JORGE L	
ART UNIT	**PAPER NUMBER**
2655	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/004,535	KIM ET AL.	
	Examiner	Art Unit	
	Jorge L. Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yang U.S. Patent No. 6,043,911 and/or in view of Izumi et al. U.S. Patent No. 6,567,355.

Regarding claim 9, Yang discloses an optical recording and reproducing apparatus to control the balance of the photodetector, comprising:

an optical module having a first and a second light source to respectively emit first and second lights of different wavelengths (See col. 3, lines 1-27; Figs. 2, 4,5,6)

a "movable" holographic optical element to regulate positioning of one of the first and second lights emitted from said optical module (see col. 3, lines 44-48; Figs. 2,3,4,5,6, ref# 38) (inherently has to be movable/adjustable before being placed in order to optimally adjust the path to match the path of the other one of the first and second lights and to progress along the same direction);

an optical path changing unit to receive and change the path of incident light received from said holographic optical element (See Figs. 4,5,6, ref# 46);

an objective lens to receive incident light received from said optical path changing unit and focus the same on the optical recording medium (See Figs. 4,5,6, ref# 44); and

a photodetector to receive first and second light spots from the light reflected from the optical recording medium and transmitted through said objective lens and said optical path changing unit (See Figs. 4,5,6, ref# 42) ; wherein the photodetector is "movable/adjustable" to regulate positioning of the other one of said first and second light spots (inherently has to be movable/adjustable before being placed optimally)

wherein the holographic optical element is between the optical module and the opticl path chaing unit (see col. 3, lines 44-48; Figs. 2,3,4,5,6, ref# 38)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Alternatively, It would have been obvious to one having ordinary skill in the art at the time the invention was made to make adjustable the elements (i.e. photodetector, holographic element etc...), since it has been held that the provision of **adjustability/movably**, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Furthermore, Yang discloses wherein the holographic optical element passes the light of one of the first and second lights without change, but diffracts and corrects the progressive path of one of the first and second lights in order to match the path of the other one of the first and

second lights and to progress along the same direction (See col. 3, line 44 to col. 4, line17; Figs. 2,3). Also as shown in Fig. 4, the first and second light spots from the light reflected from the optical recording medium and transmitted through said objective lens and said optical path changing unit, are received and converged and matched into the same photodetector surface area.

Yang discloses that in order to regulate positioning of one of the first and second lights emitted from said optical module and correct and match the progressive path of the second light beam, the holographic optical element position relative to one of the first and second lights emitted from said optical module are provided, which are received and converged and matched into the same photodetector surface area.

Izumi et al., teaches an apparatus to control the balance of a photodetector to increase the light reception efficiency from an optical recording medium and controlling the balance of a photodetector in an optical recording and/or reproducing apparatus having first and second light sources in a single module (see col. 19, lines 1-38; Figs. 19A, 19B, 23, 41)

"moving/adjusting" the holographic optical element that inherently would change the progressive path of one of the first and second lights so that a center of one of said first and second light spots received from the second light source is concentric with the center of the photodetector (See col. 20, lines 1-38, col. 20 line 62 to col. 21 line15; col. 22, lines 50-67; col. 26, lines 29-40).

Izumi et al. teaches that photodetector is movable/adjustable to regulate positioning of the other one of said first and second light spots (See col. 20, lines 44-61; "the position of the detecting part is determined to correspond with the light of the first light source and its moved to a predetermined position with respect to the first light source")

It would have been obvious to one with ordinary skill on the art at the time of the invention to include a movable/adjustable holographic optical element and photodetector in order to regulate positioning so that a center of one of said first and second light spots received from the second light source is concentric with the center of the photodetector, expanding the degree of freedom of designing the position of the light reception area of the photodetector and outputting correctly the focus error signal and the tracking error signal, as taught by Izumi et al.

Regarding claim 10, the combination of Yang with Izumi et al. shows wherein said holographic optical element is movable in an optical axis direction to move the one of said first and second light spots received by said photodetector so that the one light spot is concentric with said photodetector (See Izumi et al. col. 20, lines 1-38, col. 20 line 62 to col. 21 line15; col. 22, lines 50-67; col. 26, lines 29-40)

Regarding claim 11, the combination of Yang with Izumi et al. shows wherein said holographic optical element is rotatable about an optical axis at a predetermined angle to move the one of said first and second light spots received by said photodetector so that the one light spot is concentric with said photodetector (See Izumi et al. col. 20, lines 1-38, col. 20 line 62 to col. 21 line15; col. 22, lines 50-67; col. 26, lines 29-40)

Regarding claim 12, the combination of Yang with Izumi et al. would show a grating positioned between the holographic optical element and the optical path-changing unit (See Izumi et al. Figs. 19A, 19B, 23, 41, ref # 3,7009)

Regarding claims 13-16, Claims 13-16 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above, and are rejected for the same reasons of anticipation/obviousness as used above

Regarding claims 1-8, Method claims 1-8 are drawn to the method of using the corresponding apparatus claimed in claims 9-16. Therefore method claims 1-8 correspond to apparatus claims 9-16 and are rejected for the same reasons of anticipation/obviousness as used above.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 6,813,235; 6,643,245 and EP Publication No. 0973160.

Response to Arguments

4. Applicant's arguments with respect to claim 1-8 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

5. In regard to claims 9, Applicant's arguments filed 07/21/2005 have been fully considered but they are not persuasive.

Applicants argues that the modification or combination would change the principle of operation being modified.

The examiner cannot concur with Applicants because, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Yang discloses wherein the holographic optical element passes the light of one of the first and second lights without change, but diffracts and corrects the progressive path of one of the first and second lights in order to match the path of the other one of the first and second lights and to progress along the same direction. Hence, are received and converged and matched into the same photodetector surface area. Therefore, if the optical element is moved/adjusted/changed the progressive path of one of the first and second lights inherently would be moved/changed/adjusted as well.

Izumi et al. teaches the "moving/adjusting" of the holographic optical element in certain optical axis directions, the optical path change/move/adjust the progressive path of one of the first and second lights so that a center of one of said first and second light spots, hence received from the second light source is concentric with the center of the photodetector.

Therefore, one of ordinary skill in the art would be motivated to adjust/move/change in certain optical axis direction and/or make movable/adjustable/changeable the holographic optical element with the teachings of Izumi et al., because by doing so the holographic optical element would be placed in position in order optimally match the progressive path of the two lights, expanding the degree of freedom of designing the position of the light reception area of the

photodetector and outputting correctly the focus error signal and the tracking error signal, as taught by Izumi et al.

Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make adjustable the elements of Yang (i.e. photodetector, holographic element etc...), since it has been held that the provision of **adjustability/movably**, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954)

The proposed combination of the prior art would NOT change the principle of operation of the prior art invention being modified, and the teachings of the references are sufficient to render the claims prima facie obvious as discussed above.

Furthermore, prior art reference is an improper modification and teaches away from the claimed invention, if it suggests that developments flowing from its disclosures are unlikely to produce objective of invention, and what reference teaches person of ordinary skill in art is not limited to what reference specifically "talks about" or what is specifically "mentioned" or "written" in reference. Syntex (U.S.A.) LLC v. Apotex Inc., 74 USPQ2d 1823 (CA FC 2005); *In re Gurley*, 27 F.3d 551, 553 [31 USPQ2d 1130] (Fed. Cir. 1994).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

joc

W. R. YOUNG
PRIMARY EXAMINER